General

Guideline Title

Clinical practice guidelines: depression in adolescents and young adults.

Bibliographic Source(s)

McDermott B, Baigent M, Chanen A, Graetz B, Hayman N, Newman N, Parikh N, Peirce B, Proimos J, Smalley T, Spence S. Clinical practice guidelines: depression in adolescents and young adults. Melbourne (Australia): beyondblue: the national depression initiative; 2011 Feb. 143 p. [344 references]

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

Grades of recommendation (A-D and good practice point [GPP]) are defined at the end of the "Major Recommendations" field.

Prevention

A - Psychosocial interventions of the types investigated to date are not currently recommended for universal prevention of depressive symptoms or major depressive disorder in the adolescent population. More research is needed to identify effective approaches.

B - For children who experience a family-related risk factor for depression, family-focused interventions should be considered for the prevention of major depressive disorder in adolescence.

B - Cognitive behavioural interventions should be considered for short-term symptom reduction in adolescents with identified depressive symptoms who do not meet diagnostic criteria for major depressive disorder.

GPP - Given the lack of evidence in young adults, it is strongly recommended that strategies to prevent major depressive disorder in this age group be a focus for continuing research.

GPP - Preventive strategies in young adults should be guided by findings in adolescents until more evidence is available.

Engagement and Therapeutic Relationship

GPP - Health professionals involved in the care of young people must take the time to build strong therapeutic relationships, which will form the basis of continuing care.

GPP - Young people are acutely aware of confidentiality issues. Health professionals should have a clear understanding of such issues and the training and skills to discuss confidentiality with young people.

GPP - In most cases it is beneficial to involve the young person's parents/carers in discussions about his or her care. However, the degree of involvement will depend on the young person's age, stage of development, wishes, and circumstances.

Assessment

GPP - With the young person's consent, multiple informants should be involved to assist in identifying possible causes of the young person's distress and providing information about any changes in his or her behaviour or functioning.

GPP - A diagnosis of major depressive disorder is based on clinical judgement, including consideration of the young person's level of impairment and whether symptoms are consistent with accepted diagnostic criteria (text revision of Diagnostic and Statistical Manual for Mental Disorders, Fourth Edition, Text Revision [DSM-IV-TR]; International Classification of Diseases, Tenth Revision [ICD-10]).

GPP - Assessment for risk of suicide is an immediate task if depressive symptoms are identified in a young person, with involvement of parents/carers where possible.

Developing the Management Plan

GPP - Health professionals should provide a good standard of care at all times including maintaining the therapeutic relationship, discussing symptoms and problems, continuing contact, and encouraging a collaborative approach.

GPP - Health professionals, young people and parents/carers must be aware of the dangers of not treating episodes of moderate to severe depression. Depression is the major risk factor for suicide.

GPP - Development of the management plan should be person-centred, involving consideration of physical, mental, family, social, spiritual, and cultural factors relevant to the young person.

GPP - Treatment decisions should be based on the findings of assessments, taking into account the severity of symptoms, response to any previous treatments and co-occurring conditions, as well as the young person's circumstances, preferences, and resources.

GPP - A multidisciplinary team approach is likely to have advantages for individuals with complex presentations.

GPP - The length of treatment required for effective remission varies. Depressive conditions may require up to 36 weeks of active treatment.

Psychological Therapy — Major Depressive Disorder

B - Cognitive behavioural therapy (CBT) or interpersonal psychotherapy (IPT) should be considered as first-line treatment for adolescents with major depressive disorder.

GPP - In the absence of more substantial evidence on treating depression in young adults, it is reasonable to extrapolate from the evidence on psychological therapy in adolescents (see the preceding recommendation).

GPP - While CBT and IPT have high acceptability among young people with depression, consideration should be given to the young person's suitability to undertake psychological therapy.

GPP - CBT and IPT should be provided by professionally trained CBT/IPT therapists who have experience in working with young people. It is important that the therapy is applied in line with evidence-based practice manuals. Continuing maintenance of therapy skills is essential.

Pharmacological Treatment — Major Depressive Disorder

B - Prescription of the selective serotonin reuptake inhibitor (SSRI) fluoxetine should be considered for acute, short-term reduction of depressive symptoms in adolescents with moderate to severe major depressive disorder, where psychological therapy has not been effective, is not available or is refused, or if symptoms are severe.

B - CBT may be added to/continued with SSRI therapy, to reduce the risk of suicidal thinking and improve functioning in adolescents with major depressive disorder.

B - Tricyclic antidepressants should not be used for treating major depressive disorder in adolescents.

GPP - In the absence of more substantial evidence on treating depression in young adults, it is reasonable to extrapolate from the evidence on

pharmacological treatment in adolescents (see the preceding three recommendations).

GPP - SSRIs are not recommended for treating young people with mild depression.

GPP - Prescription of an SSRI must occur within the context of an ongoing therapeutic relationship and management plan.

GPP - To enable informed consent to pharmacological treatment, young people must be given information on adverse effects (including the possibility of emergence or escalation of suicidal thinking) and the need for ongoing monitoring during treatment.

GPP - Pharmacological treatments need to be prescribed by those trained to do so, who are very familiar with the range of adverse effects and able to appropriately monitor the young person. Where necessary, expert advice should be sought before prescribing, or the young person should be referred to a mental health service or psychiatrist.

Monitoring

B - Young people should be monitored for the onset of or increase in suicidal thinking following initiation of SSRIs.

GPP - Close monitoring of symptom severity and adverse effects is required for young people taking an SSRI, especially during the first 4 weeks.

GPP - A protocol for managing suicidal thinking must be in place for every young person who is taking an SSRI, including baseline assessment and regular monitoring for suicidal thinking.

GPP - Health professionals should be aware of the risk that a manic episode may be precipitated following initiation of SSRIs. For young people with depressive episodes and a history of mania or mixed presentations, a mood stabiliser may be required.

Continuing Treatment — Major Depressive Disorder

Inadequate Response to Treatment

GPP - If a young person does not respond to an adequate treatment dose (psychological therapy and/or pharmacological treatment) after an appropriate period of time, the diagnosis should be reviewed and consideration given to co-occurring conditions, drug or alcohol misuse, or ongoing adverse circumstances.

Continuation and Maintenance Therapy

GPP - While there is a small evidence base, current good clinical practice suggests continuing medication therapy for 6 months post-remission.

GPP - Where SSRI medication is warranted, a combined SSRI plus CBT/IPT approach appears to provide the most effective care. If a moderate to severe depressive disorder fails to respond to combined therapy, specialist advice or a second opinion should be sought.

GPP - If discontinuation of treatment is planned, consideration needs to be given to factors that may contribute to relapse and recurrence.

Severe or Recurrent Depression and/or Co-occurring Conditions

GPP - Complex presentations may require a longer assessment phase and multiple interventions delivered by different health professionals. Overall case management by one health professional is advisable.

GPP - Electroconvulsive therapy (ECT) may be considered in rare cases, such as treating severe depression with psychotic features where other approaches have not been successful.

GPP - If inpatient care is required, admission should be to an environment designed for young people wherever possible.

Management of Bipolar Disorder

Psychological Therapy

GPP - Psychoeducation and psychological interventions to improve management and assist with coping skills and psychosocial functioning are valuable adjuncts to pharmacological treatment.

Pharmacological Treatment

GPP - Considerations in decision-making about pharmacological treatments include past history of mania or family history of bipolar disorder, severity of symptoms, need for short-term stabilisation, previous dosage regime and adherence to treatments, and reasons for any non-adherence.

GPP - Serious agitation may require adjunctive medication, consistent with local prescribing protocols. If the patient is less unwell, lithium can be the initial drug of choice.

GPP - Short-term medication is generally required for acute mania, preferably with rapid-acting anti-mania medications.

GPP - Medication used for short-term stabilisation (e.g., for agitation) should be tapered and discontinued.

GPP - If symptoms are severe or the young person does not respond to treatment, combination pharmacological treatment is justified.

GPP - Specialist input should be sought for the care of young women with bipolar disorder who are considering pregnancy, pregnant, or in the postpartum period.

Continuing Treatment and Relapse Prevention

GPP - A consistent, long-term, flexible relationship between the young person, his or her parents/carers and one health professional is ideal for outpatient care in young people whose condition has been stabilised. Young people's family members should feel comfortable contacting the health professional to report escalations of symptoms or other emergencies.

Definitions:

Definition of Grades of Recommendations

A Body of evidence can be trusted to guide practice

B Body of evidence can be trusted to guide practice in most situations

C Body of evidence provides some support for recommendation(s) but care should be taken in its application

D Body of evidence is weak and recommendation must be applied with caution

Source: *NHMRC levels of evidence and grades for recommendations for developers of guidelines* (NHMRC 2009).

Good practice points (GPPs) were developed to cover areas that had been addressed in the systematic literature review but where insufficient evidence to support a recommendation was identified, as well as areas that were beyond the scope of the systematic literature review but where practical advice is needed.

Clinical Algorithm(s)

The original guideline document includes the following clinical algorithms:

- Process of differential diagnosis
- General responses to identified risk of suicide
- Process of assessment for depression in young people
- Practice algorithm for use of selective serotonin reuptake inhibitor (SSRIs) by young people
- Algorithm for managing major depressive disorder in young people

Scope

Disease/Condition(s)

The spectrum of depressive disorders including dysthymia, major depressive disorder, and bipolar disorder

Guideline Category

Counseling

Diagnosis

Evaluation

Management

Prevention

Risk Assessment

Screening

Treatment

Clinical Specialty

Family Practice

Pediatrics

Psychiatry

Psychology

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Health Care Providers

Nurses

Other

Patients

Physician Assistants

Physicians

Psychologists/Non-physician Behavioral Health Clinicians

Public Health Departments

Social Workers

Substance Use Disorders Treatment Providers

Guideline Objective(s)

- To provide evidence-based best practice guidance for the prevention, identification, treatment, and management of the symptoms of depression and depressive disorders in adolescents and young adults
- To improve health outcomes among young people who are at risk of depression, have experienced depressive symptoms, or have been diagnosed with depression

Target Population

Adolescents and young adults aged 13 to 24 years living in Australia

Note: The following are not included in the guidelines:

First episode psychosis
The specific management of patients with other physical or non-mood psychiatric conditions (co-occurring conditions)
Depressive disorders with no published outcomes in the specified age range

The diagnosis and pharmacological treatment of paediatric bipolar disorder is outside the age scope of these guidelines. Paediatric bipolar disorder is mentioned where appropriate, however, discussion should not be seen as validation of a condition that the Expert Working Committee considers to be very rare.

Interventions and Practices Considered

Diagnosis/Evaluation/Prevention

1. Prevention interventions
    - Psychosocial interventions (not currently recommended for universal prevention)
    - Family-focused interventions
    - Cognitive behavioural interventions
2. Assessment of causes of depressive disorder
3. Diagnosis of depressive disorder based on clinical judgement and accepted diagnostic criteria (text revision of Diagnostic and Statistical Manual for Mental Disorders, Fourth Edition, Text Revision [DSM-IV-TR]; International Classification of Diseases, Tenth Revision [ICD-10])
4. Assessment of suicide risk

Management/Treatment

1. Building strong therapeutic relationships
2. Maintaining and discussing confidentiality issues
3. Involvement of parents/carers
4. Development of a person-centred management plan
5. Use of multidisciplinary team approach
6. Psychological therapy
    - Cognitive behavioral therapy (CBT)
    - Interpersonal psychotherapy (IPT)
7. Pharmacological therapy
    - Selective serotonin reuptake inhibitor (SSRI) (fluoxetine)
    - Combined SSRI plus CBT
    - Tricyclic antidepressants (not recommended)
8. Monitoring of symptom severity, adverse effects, and increase in suicidal thinking
9. Continuing and maintenance therapy
10. Management of severe or recurrent depression and/or co-occurring conditions
    - Electroconvulsive therapy (ECT)
    - Inpatient care
11. Management of bipolar disorder
    - Psychoeducation and psychological interventions
    - Pharmacological treatment
    - Continuing treatment and relapse prevention

Major Outcomes Considered

- Risk of depressive symptoms, depression, or suicide
- Incidence and severity of symptoms
- Changes in symptoms
- Rates of suicidal behavior (preparatory acts, suicide attempts, or completed suicides)
- Efficacy/effectiveness strategies for prevention of depression or suicide

- Efficacy/effectiveness of strategies for treatment/management of depression or bipolar depression
- Adverse effects of strategies for treatment/management of depression or bipolar depression
- Level of function
- Quality of life
- Rates of remission from depression
- Time spent in hospital
- Rate of recovery
- Rate of relapse/recurrence
- Rate of comorbid diagnosis
- Cost effectiveness and cost of care

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Searches of Unpublished Data

Description of Methods Used to Collect/Select the Evidence

Research Questions

For a list of research questions formulated for this guideline, see Appendix 3 of the original guideline document.

Search Strategy

A systematic search of medical, psychological, and educational literature was conducted to identify relevant studies to answer the research questions. Studies published since 1966 (or inception of the database) were identified through searching of bibliographic databases, consulting content experts in the relevant fields for additional studies, and hand-searching the reference lists of included studies for other potentially relevant articles.

The following bibliographic databases were searched:

- CINAHL (1977–11/2008)
- Cochrane Library – including, Cochrane Database of Systematic Reviews, Database of Abstracts of Reviews of Effects, the Cochrane Central Register of Controlled Trials (CENTRAL), the Health Technology Assessment Database, the NHS Economic Evaluation Database (1966–11/2008)
- Current Contents (1993–11/2008)
- EconLit (for cost-effectiveness analysis only) (1969–11/2008)
- Embase.com (includes EMBASE and Medline) (1974–11/2008)
- Education resources information center (ERIC) (1966–11/2008)
- Pre-Medline (2008)
- PsycINFO (1983–11/2008)
- Scopus – limit to Social Science (1966–11/2008)
- Web of Science – Science Citation Index Expanded (1995–11/2008)

Additional sources of literature — peer-reviewed or grey literature — were sought from the sources listed below, a range of relevant journals, and from health technology assessment agency websites:

- Australian New Zealand Clinical Trials Registry (http://www.anzctr.org.au/)

- New York Academy of Medicine Grey Literature Report (http://www.greylit.org/)
- Trip database (http://www.tripdatabase.com)
- Current Controlled Trials metaRegister (http://controlled-trials.com/)
- National Library of Medicine Health Services/Technology Assessment Text (http://text.nlm.nih.gov/)

Search Terms

A series of literature searches were conducted to identify literature assessing the research questions on the prevention and management of depression in adolescents (aged 13 to 18 years) and young adults (aged 19 to 24 years). The key words and Medical Subject Headings (MeSH) were developed on a Medline/PubMed platform. The same text words and the relevant alternatives to MeSH indexing terms (i.e., EmTree headings) were used for the other bibliographic databases, where applicable.

Study Selection Criteria

Criteria for including studies in the systematic review were based on the PICO structure — Population, Intervention (treatment or risk factors), Comparator (against which an intervention's effectiveness is measured), and Outcomes of interest. Additional limits to the literature search included restricting the search to studies of a certain research design(s) (e.g., likely to provide unbiased or more reliable results), to a certain search period or language. In order to ensure that the selection of studies was not biased, these criteria were delineated before collating the literature.

Studies were excluded if they:

- Did not meet the inclusion criteria listed
- Focused on postpartum depression (separate clinical practice guidelines for perinatal mental health – *Clinical practice guidelines for depression and related disorders – anxiety, bipolar disorder and puerperal psychosis – in the perinatal period. A guideline for primary care health professionals* – were developed by *beyondblue* with support from National Health and Medical Research Council [NHMRC])
- Focused on transient sadness or grief that occurs as a reaction to life events but does not affect sleeping patterns, appetite, or the ability to function
- Focused on management of depression within adults, without any discussion of how age influences outcomes, or subgroup analyses allowing data on young adults (19 to 24 years) to be separated from older adults (25 years old and older)
- Did not state that the research was approved by an appropriate ethics committee
- Did not provide adequate data on the outcomes (e.g., in graphical format, missing information, format or type of data were unable to be used)
- Were updated by the same research group on the same research question for the same patients, with no different information provided
- Could not be retrieved within the timeframe

For many treatments of interest there was no study in the adolescent or young adult age range or if a study existed it may have been excluded due to poor methodology. The latter included idiosyncratic referral or participant characteristics, exclusion criteria that made the study hard to generalise, poorly defined measurement or measures with non-specified psychometric properties, low sample size with insufficient power to find an effect, limited details of the intervention (either active or control or both), or conclusions that were not consistent with the results or not mindful of study limitations.

Studies were included if:

- Depressive symptoms were measured.
- The main target of the treatment was depression or preventing the development of depression.
- Types of clinical depression included: major depressive disorder, dysthymia, seasonal affective disorder, depression secondary to disease or injury, adjustment disorder with depression, bipolar depression (bipolar disorder, cyclothymic disorder), melancholic (biological) or non-melancholic (not primarily biological), psychotic depression, atypical depression, and mixed depression and anxiety.
- For questions pertaining to treatment of depression, at least 70% of the participants had a diagnosis of depression, and the remaining participants had symptoms of depression.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Components of Body of Evidence Considered When Grading Each Recommendation

Component	A	B	C	D
	Excellent	Good	Satisfactory	Poor
Evidence base[1]	One or more level I studies with a low risk of bias or several level II studies with a low risk of bias	One or two level II studies with a low risk of bias or a SR/several level III studies with a low risk of bias	One or two level III studies with a low risk of bias, or level I or II studies with a moderate risk of bias	Level IV studies, or level I to III studies/SRs with a high risk of bias
Consistency[2]	All studies consistent	Most studies consistent and inconsistency may be explained	Some inconsistency reflecting genuine uncertainty around clinical question	Evidence is inconsistent
Clinical impact	Very large	Substantial	Moderate	Slight or restricted
Generalisability[3]	Population/s studied in body of evidence are the same as the target population for the guideline	Population/s studied in the body of evidence are similar to the target population for the guideline	Population/s studied in body of evidence differ to target population for guideline but it is clinically sensible to apply this evidence to target population[3]	Population/s studied in body of evidence differ to target population and hard to judge whether it is sensible to generalise to target population
Applicability	Directly applicable to Australian healthcare context	Applicable to Australian healthcare context with few caveats	Probably applicable to Australian healthcare context with some caveats	Not applicable to Australian healthcare context

Notes: SR = systematic review; several = more than two studies.

[1]Level of evidence determined from the National Health and Medical Research Council (NHMRC) evidence hierarchy

[2]If there is only one study, rank this component as 'not applicable.'

[3]E.g., results in the general population that are clinically sensible to apply to women in the perinatal period

Source: *NHMRC Levels of Evidence and Grades of Recommendations for Developers of Guidelines* (NHMRC 2009).

Methods Used to Analyze the Evidence

Meta-Analysis

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Validity Assessment

Studies that were included were critically appraised — in terms of internal and external validity — and the statistical and clinical relevance and applicability of results were determined using the National Health and Medical Research Council (NHMRC) dimensions of evidence. The evidence dimensions consider important aspects of the evidence supporting a particular intervention and include three main domains: strength of the evidence, size of the effect, and relevance of the evidence. The first domain is derived directly from the literature identified as informing a particular intervention. The last two required expert clinical input as part of their determination. See Table A3.3 in Appendix 3 in the original guideline document for definitions of each evidence dimension.

Appraisal of the Evidence

The strength of the evidence was collectively measured by the three sub-domains: level, quality, and statistical precision.

The research design of each study included in the systematic review was assessed according to its place in a hierarchy. The hierarchy reflects the effectiveness of the study design to answer a particular research question. Effectiveness is based on the probability that the design of the study has reduced or eliminated the impact of bias on the results.

The designations of the levels of evidence were based on NHMRC levels of evidence and grades for recommendations for developers of guidelines (see the "Rating Scheme for the Strength of the Evidence" field). This included the designations of levels of evidence for intervention studies together with questions on prognosis (how risk factors impact outcomes) and aetiology (what are the risk factors/protective factors). Due to the volume of evidence available, the Expert Working Committee agreed to restrict the systematic review to the highest level of evidence available for each intervention/risk factor assessed in the clinical research questions (i.e., for studies on risk factors, only prospective cohort studies or systematic reviews of prospective cohort studies were included).

Critical appraisal of the studies included in this systematic review was performed to evaluate their methodological quality, according to the likelihood that bias, confounding, and/or chance had influenced the results. The NHMRC toolkit publication *How to Review the Evidence: Systematic Identification and Review of the Scientific Literature* provides examples of critical appraisal checklists that may be used. Similar checklists were used for this systematic review, which were adapted and evaluated by the Scottish Intercollegiate Guidelines Network (SIGN) for the assessment of systematic reviews, randomised controlled trials, cohort studies, and case–control studies. These checklists have been subjected to wide consultation and evaluation, and are accompanied by detailed notes on their use. Economic evaluation studies were evaluated using the Drummond checklist, which is recommended for Cochrane systematic reviews. The SIGN checklists were chosen in preference to the ones suggested by NHMRC, as they are more comprehensive for assessing sources of bias.

Statistical Precision

Statistical precision was determined using standard statistical principles. Small confidence intervals and p-values give an indication as to the probability that the reported effect is real. Where there were multiple statistical comparisons, the results were at risk of type 1 error (incorrectly rejecting the null hypothesis) if there was not a correction to the p-value. Post-hoc subgroup analyses may not have adequate statistical power and may also have resulted in a breaking of randomisation (selection bias) and are therefore treated as hypothesis generating, requiring further formal evaluation.

Assessing Size of Effect and Relevance of Evidence

For intervention studies it is important to assess whether statistically significant differences are also clinically important. The size of the effect needs to be determined, as well as whether the 95% confidence interval includes only clinically important effects. Similarly, the outcome being measured should be appropriate and clinically relevant. Clinical and patient relevant outcomes should be used instead of surrogate outcomes, whenever possible. Inadequately validated (predictive) surrogate measures of a clinically relevant outcome should be avoided.

Effect sizes were used to provide a consistent measure of the comparative size of effect from one treatment compared to another (or no treatment). For prevention studies, Hedges' g was chosen as a method of determining effect size, as it uses a more conservative method of determining variance, which was considered more suitable than a Cohen's d, given the large proportion of studies on the prevention of depression in adolescents that are cluster randomised controlled trials. Within treatment studies, the majority of participants received individual interventions, rather than group interventions. Cohen's d was therefore considered appropriate to estimate effect sizes for treatment comparisons. Effect sizes were considered to have a small clinical impact if they were 0.2–0.3, medium if they were between 0.5 and 0.6, and large if they were 0.8 or over. If raw data were presented, a difference of at least 10% between treatment groups was used as an indicator of being potentially clinically relevant.

Data Extraction and Analysis

Standardised protocols and outcome definitions were used by the assessors to extract the data. Data extraction forms were developed prior to conducting the review to ensure the standardised extraction of outcome data for all study types. Evidence tables were used as a guide to summarise the extraction of data.

For intervention questions, meta-analyses of randomised and pseudo-randomised controlled trials were conducted where appropriate and tested for heterogeneity and publication bias. Data were stratified by type of depression (unipolar or bipolar) and age group (adolescents and young adults). All meta-analyses were performed using the software package Comprehensive Meta Analysis Version 2.2.048 (Biostat, 2008). Random effects models were used in preference to fixed effects models, to provide a more conservative estimate of effect size, as it was assumed that the population parameters varied between studies. Where meta-analysis could not be conducted, a narrative synthesis of the data was undertaken.

The full report of the literature review is available from the *beyondblue* Web site (see the "Availability of Companion Documents" field).

Assessing the Body of Evidence

After each included study had been assessed according to the three dimensions of evidence and relevant data extracted and summarised, this information was used to assist in the formulation of the evidence statements, and in determining the overall grade for the included studies (the 'body of evidence') that supports the evidence statements and subsequent recommendations.

Grading of the Evidence

Applying evidence in real clinical situations is not usually straightforward and thus the body of evidence supporting a recommendation is rarely entirely one grade for all-important components. The grading process was designed to allow for this mixture of components while still reflecting the overall strength of the body of evidence supporting a recommendation.

The application of a grade to an evidence statement and recommendation was based on a rating of the body of evidence. The five components considered in rating the body of evidence are:

- Evidence base, in terms of the number of studies, level of evidence, and quality of studies (risk of bias)
- Consistency of the study results
- Potential clinical impact of the proposed recommendation
- Generalisability of the body of evidence to the target population for the Guidelines
- Applicability of the body of evidence to the Australian healthcare context

The NHMRC Evidence Statement Form was used for each clinical question addressed in the Guidelines. Prior to completing the form, each individual study relevant to the clinical question was critically appraised and the relevant data synthesised. The form was used as the basis of discussion regarding the key components. Components were rated according to the matrix shown in the "Rating Scheme for the Strength of the Evidence" field. Any further notes relevant to developing the recommendation were also recorded in the space provided in the form. The synthesis of the evidence relating to each component was summarised. Any dissenting opinions or other relevant issues were recorded.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

The development of the Guidelines followed the key principles and processes outlined in the document: NHMRC Standards and Procedures for Externally Developed Guidelines .

An Expert Working Committee was established in 2008 to develop the draft 2011 Guidelines. Membership included consumers, carers, and representatives from relevant health professions including psychiatrists, physicians, Aboriginal and Torres Strait Islander health experts, general practitioners, psychologists, and school counsellors. An observer representing the National Health and Medical Research Council (NHMRC) attended two of the meetings, and was consulted on issues regarding NHMRC processes and requirements as necessary.

The recommendations in these Guidelines were developed by the Expert Working Committee based on systematic review of evidence published before the end of November 2008. Evidence that was graded A or B according to the NHMRC gradings (see the "Rating Scheme for the Strength of the Evidence" field) was formulated as recommendations. Evidence graded C or D was not used to form recommendations, as evidence of this level must be applied with caution.

Good practice points (GPPs) were developed to cover areas that had been addressed in the systematic literature review but where insufficient evidence to support a recommendation was identified, as well as areas that were beyond the scope of the systematic literature review but where practical advice is needed. The GPPs do not reflect studies that were graded C or D. Rather the GPP classification indicates guidance that, at this

stage, does not meet the scientific rigour of a formal recommendation. The formulation of GPPs involved a process of:

- Identifying areas where advice was required (e.g., raised by other guidelines, Committee members or through the consultation process)
- Reviewing any evidence identified through the systematic literature review
- Drafting of a GPP by members with expertise specific to the area
- Refinement of the GPP by the whole Committee over several iterations until consensus was reached

Formulating and Grading of Recommendations

Recommendations are based on the highest level of evidence available. A process developed by the NHMRC for assessing the body of evidence and formulating recommendations was used to ensure consistency in the development of evidence-based recommendations. The NHMRC Evidence Statement Form for assessing the body of evidence was used to assist with the formulation of the recommendations.

Evidence statements were developed by the assessors and refined in collaboration with the Expert Working Committee. Once the wording for the evidence statement was developed, the overall grade of the evidence statement/recommendation was determined, based on a summation of the rating for each individual component of the body of evidence.

NHMRC overall grades of recommendation are intended to indicate the strength of the body of evidence underpinning the recommendation. This should assist users of guidelines to make appropriate and informed clinical judgements. Grade A or B recommendations are generally based on a body of evidence that can be trusted to guide clinical practice, whereas Grades C or D recommendations must be applied carefully to individual clinical and organisational circumstances and should be interpreted with care.

The Expert Working Committee decided that evidence statements graded C or D would not be used to form recommendations included in the Guidelines. Evidence statements that were graded A or B were translated into a recommendation by the Expert Working Committee (all evidence statements are listed in Table A3.5 in the original guideline document). The recommendations address the original clinical questions and were written as action statements. The wording of the recommendations reflects the strength of the body of evidence.

Implementing Recommendations

The implementation strategy for the Guidelines was considered at the time that recommendations were being formulated to identify supports required for their successful uptake. The questions in the implementation of recommendation section of the NHMRC Evidence Statement Form were used to achieve this purpose.

Rating Scheme for the Strength of the Recommendations

Definition of Grades of Recommendations

A Body of evidence can be trusted to guide practice

B Body of evidence can be trusted to guide practice in most situations

C Body of evidence provides some support for recommendation(s) but care should be taken in its application

D Body of evidence is weak and recommendation must be applied with caution

Source: *NHMRC levels of evidence and grades for recommendations for developers of guidelines* (NHMRC 2009).

Good practice points (GPPs) were developed to cover areas that had been addressed in the systematic literature review but where insufficient evidence to support a recommendation was identified, as well as areas that were beyond the scope of the systematic literature review but where practical advice is needed.

Cost Analysis

Costs of Implementing the Recommendations and Good Practice Points

The Guideline recommendations for treatment of major depression in young people have two major costing implications.

The treatment of first choice is either cognitive behavioural therapy (CBT) or interpersonal psychotherapy (IPT). These psychological therapies require dedicated training, supervision, and a strategy to maintain treatment fidelity over time (e.g., strategies to prevent deviation of therapist

practice away from the form of therapy that has demonstrated benefit in randomised controlled trials). Accreditation and reaccreditation may be considered suitable strategies to achieve these goals.

There are minimal cost implications associated with recommending the use of the medication with the strongest evidence base (fluoxetine) as this is not a new agent and both the original form and less costly alternatives are currently available. There may be cost implications associated with the advice to seek input from an expert in antidepressant therapy for young people if the response to fluoxetine and evidence-based psychotherapy is inadequate. While it is difficult to quantify on current data about the availability of telephone advice and access to private and public psychiatrists, this approach is likely to be cost-effective. In many areas this is consistent with the current model of care and is likely to be no greater than CBT/IPT training and compliance costs for evidence-based psychological therapies.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Public Consultation

The draft Guidelines were released for a 60-day public consultation, as required in the *National Health and Medical Research Council (NHMRC) Act 1992* (as amended), so that the final Guidelines could be submitted for approval by the Chief Executive Officer (CEO) of the NHMRC, under Item 14A *Approval by CEO of guidelines for third parties, under the Act*.

Although the minimum requirement for the public consultation is 30 days, *beyondblue* wished to provide stakeholders and the public with plenty of opportunity to make comments on and suggestions for the draft Guidelines, and so a 60-day consultation period was selected (13 March to 12 May 2010).

The draft Guidelines underwent a rigorous consultation process during which time:

- Interested stakeholders, individuals, and organisations were invited to submit written comments.
- A series of national workshops for consumers and carers and for healthcare professionals, was held in capital cities and/or regional centres in each State and Territory.

The public consultation commenced by way of an advertisement in *The Weekend Australian* of 13 March 2010 and formally ended on 12 May 2010.

Publication Approval

The final Guidelines were submitted to the Council of the NHMRC in late 2010. These guidelines were approved by the Chief Executive Officer of NHMRC on 11 February 2011, under Section 14A of the *National Health and Medical Research Council Act 1992*. In approving these guidelines the NHMRC considers that they meet the NHMRC standard for clinical practice guidelines.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence is identified and graded for each recommendation (see the "Major Recommendations" field). The Guidelines are based on the best available current evidence where this exists, and on lower quality research and clinical expertise where it does not (good practice points).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate identification and management of depression in adolescents and young adults, which may lead to improve health outcomes by:

- Limiting the duration and impairment from depressive symptoms
- Preventing conversion of depressive symptoms into depressive disorder
- Preventing new episodes of depressive disorder
- Promoting effective treatment, limiting illness duration, advising on strategies if there is an inadequate response to treatment, and helping to prevent relapse

Potential Harms

- Section C3.3 of the original guideline discusses the potential adverse effects associated with specific pharmacologic medications and includes points for consideration when discussing their use with young people and their families. Caution is required since the efficacy and safety of many antidepressant medications for adolescents and young adults with depression is not established.
- Section C5.1.2 in the original guideline discusses effectiveness and adverse effects of specific pharmacologic medication used in the treatment of bipolar disorder, including cautions on the use of anticonvulsants during pregnancy.
- In Australia, the Adverse Drug Reactions Advisory Committee (ADRAC) has issued a statement noting that while selective serotonin reuptake inhibitors (SSRIs) are commonly prescribed for young people with depression, none has been approved for this purpose in Australia (although fluoxetine, fluvoxamine, and sertraline have been approved for treating obsessive-compulsive disorder in this age group). ADRAC has also advised that prescribers in Australia should note that the marketers of SSRIs warn, or caution against the use of SSRIs for depression in people aged less than 18 years. While not preventing their use, ADRAC advised that the use of SSRIs in young people should only occur in the context of a comprehensive management plan for the patient, which includes careful monitoring for the development of suicidal thinking or behaviours. ADRAC also noted that patients already being treated with an SSRI should not have their medication ceased abruptly.

Contraindications

Contraindications

- Tricyclic antidepressants should not be used for treating major depressive disorder in adolescents.
- Anticonvulsant use in pregnancy is associated with an increased risk of major birth defects, with rates being dose dependent, and highest when using valproate. Therefore, valproate should not be prescribed for bipolar disorder in women of childbearing age.

Qualifying Statements

Qualifying Statements

Interpretation of the Evidence and Application of the Guidelines

The following issues relevant to interpretation of the evidence and application of the Guidelines should be noted:

- Difference between lack of evidence and lack of evidence of effect — There is an important distinction between lack of evidence that implies no or very few studies available to review, and lack of evidence of effect. A principle of evidence-based medicine is that evidence is more robust if results have been replicated by several studies across different sites and from different research teams. Lack of evidence of effect means the summation of known research, combined in a rigorous process (e.g., a systematic literature review) found no evidence that the intervention was effective. To this end, clinical practice guidelines, including these Guidelines, may include A or B grade evidence that an intervention is not effective.
- Efficacy versus effectiveness — Efficacy is the extent to which a specific intervention or treatment produces a beneficial effect under ideal conditions. Effectiveness is similar, except that the intervention is used in the field, in routine circumstances and the effect is as intended for the specified population. In the context of the Australian healthcare system, these Guidelines will ideally guide the routine practice of mental health interventions with adolescents and young adults in real world settings. Care is therefore necessary, given that most evidence is

generated in highly controlled settings, and studies with the most comprehensive participant exclusion criteria are often the most difficult to generalise to clinical practice settings.
- Application of the recommendations — The recommendations in the Guidelines usually apply to the 'average' patient and may be expected to apply to most individuals presenting with a form of depression, most of the time. Guidelines still require health professionals to tailor management to the individual, and to consider contextual factors at the time of presentation.

Implementation of the Guideline

Description of Implementation Strategy

Implementation, Monitoring and Review

The dissemination processes and channels of *beyondblue* will be used to widely disseminate the Guidelines and accompanying documents to the relevant agencies and individuals. This will include health professionals, consumers and carers, and policy makers who are involved in influencing youth mental health policy and practice. Summaries of the Guidelines and commentaries will be published in appropriate journals, and practical guidance for specific groups will be derived from the Guidelines.

The context within which the Guidelines will be implemented has changed considerably since the previous guidelines were published in 1997. As well as a surge in published studies both in Australia and internationally over the past decade, there is widespread activity at national, jurisdictional, and local levels, including national and jurisdictional policies (e.g., the Fourth National Mental Health Plan 2009–2014), programs and resources developed by organisations (e.g., *beyondblue*, headspace, Black Dog Institute) and a range of self-help, support and advocacy services, and resources at the local level. *beyondblue* is extremely well placed to instigate and foster communication between the Guideline developers and communities of practice and interest in youth mental health.

It is likely that the situation will continue to change rapidly as research in this area keeps expanding. The intention is that these should be 'living' Guidelines, with the online version periodically updated to include higher-level evidence as it becomes available. It is anticipated that major review of the evidence will be undertaken within 5 years.

beyondblue has appointed an independent evaluator to assess the usefulness and uptake of the Guidelines, and to identify changes in clinical practice as a result of the release of the Guidelines.

Implementation

Implementation is seen as a key issue for the uptake and appropriate use of the Guidelines. There are clear lessons from the 1997 Guidelines and other more recent work such as the UK National Institute for Health and Clinical Excellence (NICE) guidelines, including the need to provide brief summaries of information for general practitioners and consumers. The most profound change since the 1997 Guidelines is access of health information through the internet. Versions of the 2011 Guidelines will be available online. Degree of content detail will match the user group — for example, complete text for the Royal Australian and New Zealand College of Psychiatrists and the Australian Psychological Association website, concise easier access versions with treatment algorithms available through all Divisions of General Practice sites and more consumer and carer friendly documents through open access sites. The most obvious example of the latter is the *beyondblue* website. It is anticipated that the information will also be made available to other youth-orientated sites such as Reach Out and headspace.

Any dissemination strategy needs to be multi-faceted. It is anticipated that dissemination will not only be content based. Rather, access to the advantages of an evidence-based approach, the methodology of creating evidence statements and subsequent recommendations are reforms in the adolescent and youth mental health and counselling field that will accompany dissemination of the 2011 Guidelines. Committee members are committed to providing ongoing training in these areas following the release of the 2011 Guidelines.

Lastly, there are aspects of the 2011 Guidelines that will be published in the peer-refereed international literature. This reflects the fact that the 2011 Guidelines are underpinned by the most recent meta-analyses of adolescent and youth depression risk factors, prevention and management.

Evaluation of the Usefulness of the Guidelines

beyondblue is committed to assessing the impact of the Guidelines once the final Guidelines are released. To address this, *beyondblue* has engaged an independent organisation to undertake a baseline survey prior to the approval of the final Guidelines, and 6-month post-dissemination evaluation of the usefulness and uptake of the Guidelines, to test for any changes in clinical practice that occurred after the publication of the Guidelines. The evaluation will not seek to measure health outcomes, as it is considered there would be too many confounding factors to effectively

assess and report on this, but will be looking for any change in practice by the target groups 6 months after the release of the Guidelines, which may contribute to improvements in health outcomes.

The evaluation will follow the process required in the National Health and Medical Research Council publication: *A Guide to the Development, Implementation and Evaluation of Clinical Practice Guidelines*, Item 5.1.3 'Evaluation of the guidelines' contribution to changes in clinical practice and health outcomes'. The findings of the evaluation will inform the dissemination and awareness-raising process and may identify areas for providing improved training for key stakeholders, to support the implementation of the recommendations and good practice points.

Implementation Tools

Chart Documentation/Checklists/Forms

Clinical Algorithm

Patient Resources

Quick Reference Guides/Physician Guides

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

McDermott B, Baigent M, Chanen A, Graetz B, Hayman N, Newman N, Parikh N, Peirce B, Proimos J, Smalley T, Spence S. Clinical practice guidelines: depression in adolescents and young adults. Melbourne (Australia): beyondblue: the national depression initiative; 2011 Feb. 143 p. [344 references]

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2011 Feb

Guideline Developer(s)

beyondblue: the national depression initiative - Nonprofit Organization

Source(s) of Funding

The Board of *beyondblue* committed funding and resources to the creation of the 2011 Guidelines. No other organisation, company or individual have provided financial or non-financial support for the development of the 2011 Guidelines.

Guideline Committee

Expert Working Committee

Composition of Group That Authored the Guideline

Committee Members: A/Prof Brett McDermott (*Chair*), beyondblue Board, child and adolescent psychiatry; A/Prof Michael Baigent, beyondblue Clinical Advisor; Dr Andrew Chanen, Consultant psychiatrist with expertise in youth mental health; Ms Lesley Fraser, Australian Guidance and Counselling Association; Dr Brian Graetz, beyondblue Education and Early Childhood; A/Prof Noel Hayman, Royal Australian College of Physicians (RACP): Aboriginal and Torres Strait Islander Health Expert Advisory Group; Professor Louise Newman, RANZCP: Faculty of Child and Adolescent Psychiatry; Dr Nikunj Parikh, Royal Australian College of General Practitioners (RACGP); Ms Bernadette Peirce, blueVoices consumer; Dr Jenny Proimos, RACP: Paediatrics and Child Health Division; Ms Thelma Smalley, blueVoices carer; Professor Sue Spence Australian Psychological Society (APS)

Financial Disclosures/Conflicts of Interest

Managing Competing Interests

All members were asked to complete a 'Certification of Disclosure of Interest' form prior to acceptance onto the Expert Working Committee.

Members were also requested to advise *beyondblue* and the Chair of the Expert Working Committee if any potentially competing interest arose during the development of the Guidelines; for example, being offered an honorarium to present at a pharmaceutical company event or support (financial or in kind) to attend conferences, workshops, or the like. A review of potential conflicts of interest was undertaken at every committee meeting.

In the case of a member being an author of a paper under discussion, where it could be seen to present a competing interest, particularly in the development of either a recommendation or a good practice point (GPP), members were asked to temporarily leave the meeting. This was to avoid the potential for influencing any decision made and was duly recorded in the minutes of the meeting.

The conflict of interest system management process was robust, transparent, and referred to frequently. Discussions about honoraria and authorship were the most common conflict of interest issues identified or declared. One issue of a superannuation fund including pharmaceutical shares was raised. Following legal advice no conflict of interest was noted. To avoid the perception of conflict of interest the member disposed of these shares.

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available from the *beyondblue* Web site.

Availability of Companion Documents

The following are available:

- Depression in young people - executive summary: A guide for primary care health professionals. Melbourne (Australia): beyondblue: the national depression initiative; 2010. 20 p.
- Assessing depressive symptoms in young people. A guide for primary care health professionals. Melbourne (Australia): beyondblue: the national depression initiative; 2010. 4 p.
- Engaging young people in health care: A guide for primary care health professionals. Melbourne (Australia): beyondblue: the national depression initiative; 2010. 4 p.
- Depression in young people: A desktop guide for primary care health professionals. Melbourne (Australia): beyondblue: the national depression initiative; 2010. 35 p.

Electronic copies: Available in Portable Document Format from the *beyondblue* Web site.

The following are also available:

- NHMRC standards and procedures for externally developed guidelines. 2007 Sep. 21 p. Electronic copies: Available in PDF from the National Health and Medical Research Council (NHMRC) Web site.
- NHMRC additional levels of evidence and grades for recommendations for developers of guidelines. 2009. 23 p. Electronic copies: Available in PDF from the NHMRC Web site.

Patient Resources

A number of patient resources for young people are available on the *beyondblue* Web site.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

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